DX-9100 Series
Extended Digital Controller

Description

The DX-9100 Extended Digital Controller is the ideal digital control solution for multiple chiller or boiler plant applications, air handling units, or distributed lighting control.

As a standalone controller, the DX-9100 provides a real-time clock, extendable I/O, and graphic software programming to target a variety of applications. Individual point monitoring and control is available through the front panel LED display.

The DX-9100 also connects to the system over the N2 Bus, integrating its point and control information with the entire controller network.

Preconfigured examples are available for common applications to use as a foundation for customizing to your particular facility. If the preconfigured examples don't cover your requirements, you can configure a totally customized process. In addition, points unused in the control scheme can be used in non-critical supervisory or control applications by the Network.

Order DX-9100-8454 controller (FA-DX9100-8454 for Facilitator version) with mounting base DX-9100-8990 or DX-9100-8996.

Features

- Standalone control provides system reliability
- Network communications over N2 Bus provides facility-wide control efficiencies and cost effective sensor sharing
- Fully integrated modular packaging allows you to purchase only needed parts
- Complete line of compatible sensors, actuators, and accessories for a total system solution
- Interfaces to both pneumatic and electric actuators to provide low cost installation for both new construction and retrofit applications
- Graphical configuration via GX-9100 software tool allows easy connection of Flow Chart Modules to obtain desired control sequence
- Built-in local status display makes it convenient and easy to use
- Password and Trend Log features

To Order

Specify the code number from the selection chart on the next page.

Options

Application Modules	Configuration Options
Analog Inputs	Sensor/Transmitter ranging High/Low limits Filter constants Square root
Control Blocks	PID Loops Remote reset logic Operation modes Control limits and alarms Sequencer and step control logic
Digital Inputs	Source points for logic functions Pulse counters
Calculation Blocks	Averaging Minimum or maximum select Enthalpy, wet bulb and dew point Input selector Arithmetic calculator Compare logic Line segment function Timer functions Run-time counter Totalizer and Integrator
Logic Blocks	AND, OR, NOT State change detect Set and reset of parameters
Analog Outputs	High/Low ranging
Digital Outputs (DX Controller)	Incremental with or without feedback Duration adjust type On/Off logic, including pulse
Digital Outputs (XT Modules)	On/Off logic, including pulse
Time Schedule Blocks	Yearly holiday calendar Start-stop times for days of week and holidays Optimal start/stop modules (2 modules available)

Point Configuration

Point Type	Quantity			Characteristics
	DX-9200	**XT-9100 w/XPx**	**XTM-905 w/XPx [a]**	
Analog Inputs	8	6	6	0-10 VDC (impedance 300K ohm) 0/4-20 mA DC (impedance 100 ohm) RTD Ni1000 (JCI), A99 (JCI), and Pt1000 (DIN)
Digital (Binary) Inputs	8	4/8/16	4/8/16	Dry Contacts (potential free)
Digital (Binary) Outputs	6	4/8/16	3 to 4/8/16	24 VAC Triacs (minimum 0.05 amperes [A], maximum 0.5A) XT/XTM only: Relay Contact (maximum 250 VAC 3A) XTM only: relays with magnetically latched or electrically held operation
Analog Outputs	4	2	2	0-10 VDC (10 mA maximum) or 0/4-20 mA DC
	4	0	0	0-10 VDC (10 mA maximum) only

(a) The specifications of this table only pertain to modules available in North America.

JOHNSON CONTROLS

DX-9100 Series Extended Digital Controller (Continued)

Selection Chart

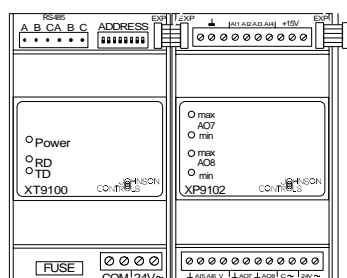| Code Number	Description
DX-9100-8454	Extended Digital Plant Controller, Version 2
FA-DX9100-8454	Extended Digital Plant Controller, Version 2 (Facilitator)
DX-9100-8990	Wall Mounting Base
DX-9100-8991	Terminal Covers for wall mounting base
DX-9100-8996	Door Mounting Base

Accessories

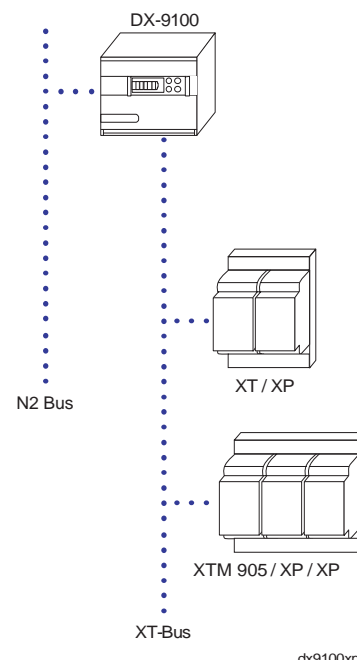| Code Number	Description
DT-9100-8104	LCD Display Unit for DX-9100
Extension and Expansion Modules	
XT-9100-8304	Extension Module
XP-9102-8304	2 Analog Outputs and 6 Analog Inputs
XP-9103-8304	8 Digital Outputs (triacs)
XP-9104-8304	4 Digital Inputs, 4 Digital Outputs (triacs)
XP-9105-8304	8 Digital Inputs
XP-9107-8304	4 Digital Outputs (24V Relay)

Specifications

Extended Digital Controller	
Source Power	24 VAC +/-10% at 50/60 Hz
Ambient Operating Conditions	32 to 122°F (0 to 40°C) 10 to 90% Non-Condensing RH
Ambient Storage Conditions	0 to 160°F (-20 to 70°C) 5 to 95% RH
Size (H x W x D)	7.9 in. x 7.2 in. x 3.9 in. 200 x 184 x 100 mm
Weight	FA-DX9100-8454, DX-9100-8454 4.7 lbs (2.2 kg)
Agency Listings	UL864 (with DX-9100-8990 Base) CSA CE Deirective 89/336/EEC EN5008 1/2 and 2/1

XTM-905/XT-9100 Extension Module/XP910x Expansion Modules

Extension Modules (XT-9100/XPx or XTM-905/XPx) are submodules that provide various combinations of analog and binary input/output points. They may be mounted next to the controller on the same DIN rail, or remotely, up to 4,000 feet from the controller. Up to eight submodule combinations can connect to the XT Bus of the controller, providing up to 64 additional
I/O points. The XT Bus has the same physical characteristics as the Metasys N2 Bus.

dx9100xp